

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P559079

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-93-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559079
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-1-LD4-2HI-35-UNV-93-87-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1814.0 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

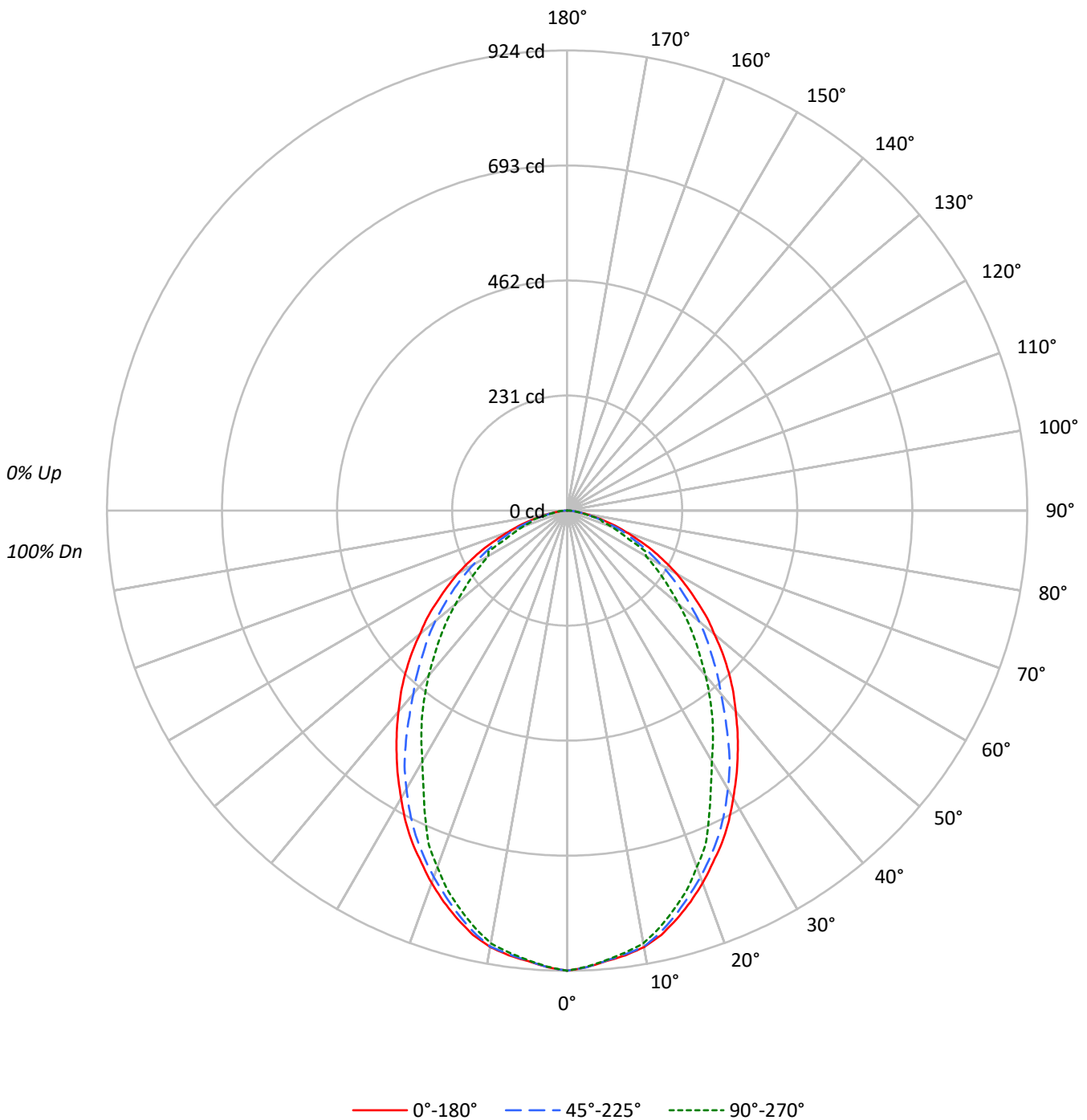
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									20									
RC	80									70									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100												100																
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87												87																
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75												75																
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65												65																
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56												56																
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50												50																
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44												44																
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40												40																
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36												36																
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33												33																
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30												30																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9946	9946	9946
5°	9811	9799	9788
10°	9725	9715	9645
15°	9464	9368	9238
20°	9116	8969	8725
25°	8741	8551	8018
30°	8285	8019	7223
35°	7846	7411	6682
40°	7399	6754	6079
45°	6976	6244	5497
50°	6457	5796	4901
55°	5973	5253	4389
60°	5472	4691	3933
65°	4816	4108	3482
70°	3969	3597	2958
75°	3152	2753	2886
80°	2120	1984	1853
85°	1321	1581	1853

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6976 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.0	4.7
10°-20°	236.1	13.0
20°-30°	326.8	18.0
30°-40°	348.5	19.2
40°-50°	317.9	17.5
50°-60°	249.1	13.7
60°-70°	162.3	8.9
70°-80°	71.9	4.0
80°-90°	15.4	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	648.9	35.8
0°-40°	997.4	55.0
0°-60°	1564.3	86.2
0°-90°	1814.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1814.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	924	924	924	924	924	
5°	908	907	907	906	906	86
15°	849	849	841	832	829	239
25°	736	732	720	694	675	338
35°	597	593	564	521	508	373
45°	458	449	410	376	361	353
55°	318	309	280	247	234	286
65°	189	178	161	164	137	186
75°	76	70	66	63	69	81
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	924.0	924.0	924.0	924.0	924.0
2.5°	917.6	917.6	917.6	916.5	916.5
5°	908.0	906.9	906.9	905.9	905.9
7.5°	900.5	899.5	898.4	897.3	895.2
10°	889.8	889.8	888.8	883.4	882.4
12.5°	872.8	871.7	867.4	859.9	857.8
15°	849.3	849.3	840.7	832.2	829.0
17.5°	823.6	822.5	811.9	803.3	799.0
20°	795.8	793.7	783.0	769.1	761.7
22.5°	764.9	764.9	752.0	733.9	726.4
25°	736.0	731.7	720.0	694.4	675.1
27.5°	702.9	696.5	683.7	647.4	624.9
30°	666.6	663.4	645.2	598.2	581.1
32.5°	632.4	627.1	607.8	558.7	544.8
35°	597.1	592.9	564.0	521.3	508.5
37.5°	561.9	556.6	520.2	486.0	470.0
40°	526.6	520.2	480.7	449.7	432.6
42.5°	493.5	485.0	446.5	413.4	394.2
45°	458.3	448.7	410.2	376.0	361.1
47.5°	423.0	414.5	379.2	344.0	326.9
50°	385.6	378.2	346.1	310.9	292.7
52.5°	354.7	342.9	311.9	276.7	261.7
55°	318.3	308.7	279.9	246.8	233.9
57.5°	285.2	275.6	248.9	217.9	207.2
60°	254.2	240.4	217.9	191.2	182.7
62.5°	220.1	209.4	190.1	167.7	178.4
65°	189.1	178.4	161.3	164.5	136.7
67.5°	154.9	149.6	134.6	119.6	115.4
70°	126.1	119.6	114.3	98.3	94.0
72.5°	100.4	94.0	86.5	78.0	74.8
75°	75.8	70.5	66.2	63.0	69.4
77.5°	52.3	50.2	47.0	43.8	42.7
80°	34.2	33.1	32.0	31.0	29.9
82.5°	20.3	20.3	20.3	20.3	20.3
85°	10.7	11.8	12.8	13.9	15.0
87.5°	6.4	6.4	7.5	8.5	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)